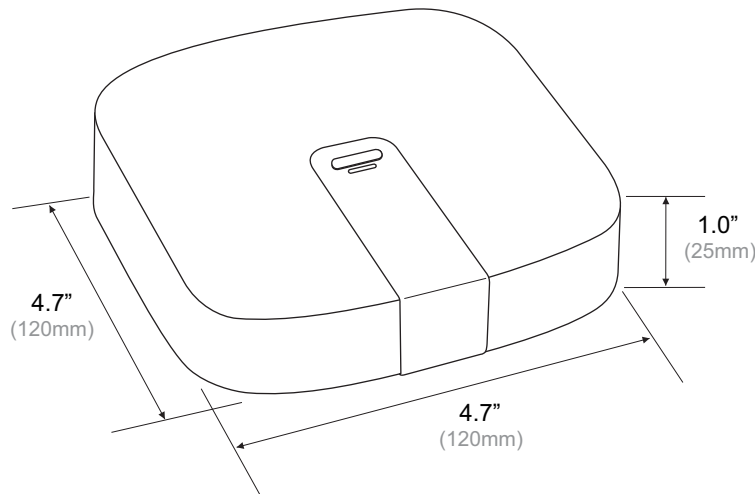# EliteControl
FULHAM

CTGATBPOE

Fulham Gateway

An IoT gateway for the connection and management of Bluetooth mesh networks in commercial building applications. Access is via Fulham Commissioning, It delivers: Internet connectivity.

- Data collection - i.e. routing data from the network to the Fulham Cloud.
- Future functionality: Management (recommissioning) & control of lighting networks.
- Future functionality: System status monitoring.

General Specifications

Capacity & Performance	The gateway provides full protection against power failure.
	The current hardware configuration allows the Fulham Gateway to process 450 Bluetooth mesh network messages per second with data transfer reliability of ove r 99%.
DC Power Supply	12V, 1-1.5A or PoE 802.3 af
Operating System	Ubuntu Core
Processor	NXP i.MX6 UltraLite
Communication Protocols	Bluetooth mesh, TCP/IP, IPv4
Security	Secure boot with encrypted operating system (to protect the integrity and confidentiality of the data)
	Secure communication with Fulham Cloud over Internet (TL S)
	Secure communication with devices over Bluetooth Mesh
RF Information	2.4 GHz BLE radio (IEEE 802.15.1) Tx/ Rx
	Maximum radio frequency antenna power output: 10 mW (+10 dBm)
	Internal omni-directional trace antenna
	Communication range of 500m (over 1500 ft) line of sight
Ports	1 x RJ45 10/100 Ethernet port (with PoE option)
Operating Temperature	0°C to +70°C (32°F to 158°F)
Housing & Dimensions	Material: ABS, PC
	120 x 120 x 25 mm (4.7 x 4.7 x 1 inches)
Weight	0.254 kg (0.56 lbs)
Mounting Position	Wall or surface mounted. As close to the geometrical centre of the lighting network as possible but as far as possible from potential sources of interference.
Certifications	FCC, IC, CE, RCM

Mechanical Drawings

4.7" (120mm)

4.7" (120mm)

1.0" (25mm)

Fulham Co. Inc.: 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-323-779-2980 Fax.: 1-323-754-9060. order@fulham.com www.fulham.com
Specifications subject to change without notice.

Page 1 of 3
2020-000 Rev A

CTGATBPOE

Overview

The **CTGATBPOE** is the Fulham gateway that extends the mesh network with Internet access. It allows our partners to collect data from their Bluetooth mesh lighting networks and transmit them to the Fulham Cloud, from where it can be visualised and analysed. The CTGATBPOE also allows the partners to have control over lighting control functions.

Lighting installations with CTGATBPOE

- One gateway can control multiple areas
  - A single area is a single level of a building and includes a floor plan which helps to navigate through commissioning, monitoring and maintenance of a project.
- Can handle data from a network of approximately 200 bluetooth mesh devices.
- Works with qualified Bluetooth mesh stack.

Specifications

Computing & Storage	✓ 800 MHz ARM A7 with 512 MB RAM ✓ 8 GB of storage
Ethernet	✓ 10/100 Ethernet with PoE 802.3 af
Accessory Options	✓ Wall / Ceiling Bracket ✓ International Power Adapter

Services

The CTGATBPOE is the enabler of Fulham services such as:

Scheduling	Automatic mode allowing to recall scheduled scenes for a zone(s) at the specified time on specified days.
Energy Monitoring	Provides real time data on the power consumption of the lighting installation in your building.
Occupancy Monitoring	See real-time occupancy heatmap.

Fulham Co. Inc.: 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-323-779-2980 Fax.: 1-323-754-9060. order@fulham.com www.fulham.com
Specifications subject to change without notice.
Page 2 of 3
2020-000 Rev A

CTGATBPOE

Remote maintenance and upgrades

- The CTGATBPOE is remotely upgradeable (regular maintenance updates).
- Remote access to gateway data, remote monitoring, remote provisioning. The owner of the lighting installation needs only to install the gateway in the space, but does not need to perform health-checks or do the updates.
- Monitoring and logging alerts for the key performance metrics such as: CPU load and connectivity status.
- In case of an unexpected issue with a gateway device or a need of an emergency reconfiguration, the owner / installer needs to contact the support and these cases are handled by the gateway provider.

Updates and Security

- Linux Operating System, secure boot & encrypted file system
- High level of hardware and software security (secure boot & encrypted file system that can only be accessed with the management platform)
- Secure provisioning of devices: gateways are provisioned with secure IDs and encrypted keys
- Automatic security updates
- OS updates & fixes to vulnerabilities as soon as any discovered

Networking Options

- Qualified Bluetooth Mesh
- 10/100 Ethernet with PoE 802.3 af
- Outbound and inbound amplification increasing connectivity range

Gateway Network Requirements

- CTGATBPOE uses DHCP to configure its IP address, default gateway, and DNS servers.
- The CTGATBPOE user must whitelist several remote hosts & ports. A full list of remote hosts & ports is available in "*SN-210 Fulham gateway set up and connection instructions*"
    - Be aware that many of these hosts resolve to multiple IP addresses which may change at any time. System administrators should not rely on whitelisting individual IP addresses for these services.

Fulham Co. Inc.: 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-323-779-2980 Fax.: 1-323-754-9060. order@fulham.com www.fulham.com
Specifications subject to change without notice.
Page 3 of 3
2020-000 Rev A